



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Division of Drinking Water

June 10, 2016
System No.: 2000544

Mr. Phil Toler, Special Districts Manager
County of Madera Public Works Department
200 West 4th St., Third Floor
Madera, CA 93637

CITATION NO.: 03-11-16C-014
Violation of Provisions of Regulation 64653(c)
Surface Water Turbidity Performance Standard

Enclosed is a Citation issued to the County of Madera, MD#01 Hidden Lake Estates Water System (hereinafter "Water System") public water system. The Water System will be billed at the State Water Resources Control Board's (hereinafter "State Board") hourly rate (currently estimated at 153.00 per hour) for the time spent on issuing this Citation. California Health and Safety Code, Section 116577, provides that a public water system must reimburse the State Board for actual costs incurred by the State Board for specified enforcement actions, including but not limited to, preparing, issuing and monitoring compliance with a citation. At this time, the State Board has spent approximately 2.0 hour(s) on enforcement activities associated with this violation.

The Water System will receive an invoice sent from the State Board in August of the next fiscal year. This invoice will contain fees for any enforcement time spent on the Water System for the current fiscal year.

If you have any questions regarding this matter, please contact Bruce Ramsden at 559-447-3314.

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosures

Certified Mail No.: 7015 1660 0000 0781 9647

cc: Madera County Environmental Health Department

C:\Users\bramsden\Documents\2000544 Hidden Lake Estates\Enforcement\Cover Letter.doc

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**STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER**

IN RE: **COUNTY OF MADERA, MD#01 HIDDEN LAKE ESTATES**
WATER SYSTEM NO. 2000544

TO: PHIL TOLER
COUNTY OF MADERA PUBLIC WORKS DEPARTMENT
200 WEST 4TH ST., THIRD FLOOR
MADERA, CA 93637

CITATION NO. 03-11-16C-014

**CITATION FOR NONCOMPLIANCE
FOR VIOLATION OF REGULATION 64653(c)
FOR SURFACE WATER TURBIDITY PERFORMANCE STANDARD
for MAY 2016
ISSUED ON JUNE 10, 2016**

The California Health and Safety Code (hereinafter "CHSC"), Section 116650 authorizes the State Water Resources Control Board (hereinafter "State Board"), to issue a citation to a public water system when the State Board determines that the public water system has violated or is violating the California Safe Drinking Water Act (hereinafter "California SDWA"), (CHSC, Division 104, Part 12, Chapter 4, commencing with Section 116270), or any regulation, standard, permit or order issued or adopted thereunder.



35 In addition, CHSC, Section 116540 authorizes the State Board to issue domestic water
36 supply permits and to be able to impose permit conditions and requirements for system
37 improvements.

38
39 The State Board, acting by and through its Division of Drinking Water (hereinafter
40 “Division”) and the Deputy Director for the Division (hereinafter “Deputy Director”),
41 hereby issues this citation pursuant to Section 116650 of the CHSC to the County of
42 Madera Public Works Department - MD#01 Hidden Lakes Estates (hereinafter “System”) for the violation of the turbidity performance standards established in the Long Term 1
43 Enhanced Surface Water Treatment Regulation (LT1ESWTR) of the surface water
44 treatment rule filtration regulation number 64653(c), Table 64653 Combined Filter
45 Effluent Turbidity Performance Standards, Section (2)(A).

46
47
48 A copy of the applicable statutes and regulations are included in Attachment 1, which is
49 attached hereto and incorporated by reference.

50
51 **STATEMENT OF FACTS**

52 The System is classified as a community water system with a population of approximately
53 162 persons, serving 49 service connections. The System is operating under Domestic
54 Water Supply Permit No. 03-11-15P-019 (hereinafter “Permit”), issued on May 15, 2015.

55
56 The System utilizes Millerton Lake as the approved surface water source. The surface
57 water source is prechlorinated followed by conventional filtration by an alternative



58 technology treatment plant followed by chlorination disinfection prior to entering the clear
59 well and distribution system. The System is required to treat the surface water to 0.3
60 Nephelometric Turbidity Units (NTU) in the 95th percentile for effluent turbidity readings.
61 The System must also notify the Division by telephone for any exceedance of any primary
62 MCL in the combined effluent of the treatment plant, failure to meet CT requirements, or
63 whenever the turbidity of the combined filter effluent exceeds 1.0 NTU at any time.
64 Notification shall occur within 24 hours of the System becoming aware of such an
65 incident. In March 2016 the System's 95th Percentile had a value of 0.990 NTU.

66
67 Due to significant runoff into Millerton Lake from significant rainfall events feeding the
68 San Joaquin River, the System's surface water treatment plant experienced raw water
69 turbidities that the County's older plant could not treat to a level meeting the effluent
70 turbidity performance standards. The System had to treat the water due to the customer
71 demands and diminishing storage levels. However, the treatment was not enough to meet
72 the turbidity performance standards. The System does have a DWSRF planning project to
73 design a replacement surface water treatment plant.

74
75 On March 13, 2016, Tier 1 public notice (boil water order - BWO) was required by the
76 Division and the notice was hand delivered by County Staff. In addition, since there is
77 only one entrance and exit to the Hidden Lakes subdivision, a sign board with the BWO
78 information was posted. On April 20, 2016, a BWO cancellation notice was distributed to
79 each customer, along with another posting on the sign board at the entrance to the
80 subdivision.



81

82 **DETERMINATION**

83 The Permit includes conditions that the System is required to comply with, which were
84 deemed necessary to assure a reliable and adequate supply of water at all times that is pure,
85 wholesome, potable and does not endanger the health of consumers.

86 The System's 95th Percentile NTU value for all turbidity readings during March 2016 was
87 0.990 NTU. The average turbidity readings from March 13, 2016, through March 25,
88 2016, exceeded the performance standard of 0.3 NTU with the following respective values:
89 0.533, 0.793, 0.483, 0.552, 0.806, 0.623, 0.500, 0.550, 0.549 and 0.374. The System did
90 not attempt to produce and treat water on 3/19/2016, 3/22/2016 and 3/24/2016. Table 1
91 shows the systems previous year monthly turbidity values.

92

93 Therefore, the Division has determined that during March 2016, the System failed to
94 comply with Regulation 64653(c), Table 64653 Combined Filter Effluent Turbidity
95 Performance Standards, Section (2)(A) of the California Code of Regulations.

96 **Table 1: Hidden Lakes 2015-2016 Effluent Turbidity Values**

Month	95 th Percentile Turbidity (NTU)	Maximum Turbidity (NTU)
April 2015	0.109	0.280
May 2015	0.150	0.221
June 2015	0.240	0.299
July 2015	0.184	0.250

August, 2015	0.227	0.299
September, 2015	0.289	0.295
October, 2015	0.283	0.291
November, 2015	0.294	0.299
December, 2015	0.138	0.195
January, 2016	0.226	0.280
February, 2016	0.250	0.288
March, 2016	0.990	0.992

DIRECTIVES

The system is hereby directed to take the following actions:

1. Comply with Regulation 64653(c), Table 64653 Combined Filter Effluent Turbidity Performance Standards, Section (2)(A) in all future monitoring periods.
2. The System shall submit proof of the public notification and copies of the Tier 1 public notification (BWO) and cancellation on or before July 1, 2016, using the form provided as Attachment 2, hereto.
3. The System shall include this violation in the 2015 Consumer Confidence Report in accordance with CCR, Title 22, Section 64481(g)(2). And shall include Health Effects language pursuant to Appendix 64465-B, Health Effects Language Surface Water Treatment.



All submittals required by this citation shall be submitted to the Division at the following address:

Kassy Chauhan, P.E., Senior Sanitary Engineer
State Water Resources Control Board
Division of Drinking Water, Merced District
265 W. Bullard Ave, Suite 101
Fresno, CA 93704

The State Board reserves the right to make such modifications to the Citation as it may deem necessary to protect public health and safety. Such modifications may be issued as amendments to this Citation and shall be effective upon issuance.

Nothing in this Citation relieves the System of its obligation to meet the requirements of the California SDWA (CHSC, Division 104, Part 12, Chapter 4, commencing with Section 116270), or any regulation, standard, permit or order issued or adopted thereunder.

PARTIES BOUND

This Citation shall apply to and be binding upon the System, its owners, shareholders, officers, directors, agents, employees, contractors, successors, and assignees.

SEVERABILITY

The directives of this Citation are severable, and the System shall comply with each and every provision hereof, notwithstanding the effectiveness of any other provision.



139 **FURTHER ENFORCEMENT ACTION**

140 The California SDWA authorizes the State Board to: issue a citation with assessment of
141 administrative penalties to a public water system for violation or continued violation of the
142 requirements of the California SDWA or any regulation, permit, standard, citation, or order
143 issued or adopted thereunder including, but not limited to, failure to correct a violation
144 identified in a citation compliance order. The California SDWA also authorizes the State
145 Board to take action to suspend or revoke a permit that has been issued to a public water
146 system if the public water system has violated applicable law or regulations or has failed to
147 comply with an order of the State Board, and to petition to superior court to take various
148 enforcement measures against a public water system that has failed to comply with an
149 order of the State Board. The State Board does not waive any further enforcement action
150 by issuance of this Citation.

151
152
153
154 6/10/16
155 Date

Kassy Chauhan
Kassy Chauhan, P.E.
Senior Sanitary Engineer, Merced District
DRINKING WATER FIELD OPERATIONS

156
157
158
159 KDC/BJR

160
161 **Attachments:**

162 **Attachment 1: Applicable Statutes and Regulations**
163 **Attachment 2: Proof of Notification Form**
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167

Sent Via Certified Mail No. 7015 1660 0000 0781 9647



NOTE: This publication is meant to be an aid to the staff of the State Board's Division of Drinking Water and cannot be relied upon by the regulated community as the State of California's representation of the law. The published codes are the only official representation of the law. Refer to the published codes—in this case, 17 CCR and 22 CCR—whenever specific citations are required. Statutes related to the State Board's drinking water-related activities are in the Health & Safety Code, the Water Code, and other codes.

(A) Redundant components, including an auxiliary power supply with automatic start-up and alarm to ensure that disinfectant application is maintained continuously while water is being delivered to the distribution system; or

(B) Automatic shut-off of delivery of water to the distribution system whenever there is less than 0.2 mg/L of residual disinfectant concentration in the water.

(3) The water system shall meet the requirements of section 64654(b)(1) at all times the system serves unfiltered approved surface water to the public unless the State Board determines that any such failure was caused by circumstances that were unusual and unpredictable; and

(4) The water system shall meet the requirements of section 64654(b)(2) on an ongoing basis unless the State Board determines that failure to meet these requirements was not caused by a deficiency in treatment of the unfiltered approved surface water.

(l) Whenever the monitoring of the quality of the approved surface water indicates the turbidity exceeds 5.0 NTU, or the fecal coliform level exceeds 20/100 mL or the total coliform concentration exceeds 100/100 mL in 10 percent or more of the samples collected in the previous six months during which the system served unfiltered approved surface water to the public on an ongoing basis, the source shall be removed from service. The source may be returned to service when monitoring subsequent to removing the source from service demonstrates that the turbidity is less than or equal to 5.0 NTU and the fecal coliform level is less than or equal to 20/100 mL or the total coliform level is less than or equal to 100/100 mL for two consecutive days, and *Giardia lamblia* monitoring results indicate 1 cyst per 100 liters or less. If a system measures both fecal and total coliforms, the fecal coliform criterion, not the total coliform criterion, in this subsection shall be met.

§64653. Filtration.

(a) All approved surface water utilized by a supplier shall be treated using one of the following filtration technologies unless an alternative process has been approved by the State Board pursuant to subsections (e), (f), (g) and (h):

- (1) Conventional filtration treatment;
- (2) Direct filtration treatment;
- (3) Diatomaceous earth filtration; or
- (4) Slow sand filtration.

(b) Conventional filtration treatment shall be deemed to be capable of achieving at least 99.7 percent removal of *Giardia lamblia* cysts, 99 percent removal of viruses, and 99 percent removal of *Cryptosporidium* when in compliance with operating criteria specified in section 64660 and performance standards specified in table 64653. Direct filtration treatment, diatomaceous earth filtration, and slow sand filtration shall be deemed to be capable of achieving at least 99 percent removal of *Giardia lamblia* cysts, 90 percent removal of viruses, and 99 percent removal of *Cryptosporidium* when in

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compliance with operating criteria specified in section 64660 and performance standards specified in table 64653.

(c) A supplier shall comply with the combined filter effluent turbidity performance standards in table 64653 for each treatment plant while the plant is in operation:

Table 64653
Combined Filter Effluent Turbidity Performance Standards^(a)

<i>If a supplier uses...</i>	<i>The turbidity level of the combined filter effluent...</i>
(1) Conventional or direct filtration treatment and serves 10,000 or more persons	<p>(A) Shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month;</p> <p>(B) Shall not exceed 1 NTU for more than one continuous hour;</p> <p>(C) Shall not exceed 1 NTU at four-hour intervals; and</p> <p>(D) Shall not exceed 1.0 NTU for more than eight consecutive hours.</p>
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons	<p>(A) Shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month;</p> <p>(B) For a supplier using a grab sample monitoring program:</p> <ol style="list-style-type: none"> 1. Shall not exceed 1 NTU; and 2. Shall not exceed 1.0 NTU in more than two consecutive samples; and <p>(C) For a supplier using a continuous monitoring program:</p> <ol style="list-style-type: none"> 1. If recording results at least once every 15 minutes, shall comply with paragraph (1)(B); and 2. Shall comply with paragraphs (1)(C) and (1)(D).
(3) Diatomaceous earth filtration	<p>(A) Shall be less than or equal to 0.5 NTU in at least 95 percent of the measurements taken each month;</p> <p>(B) Shall not exceed 5.0 NTU;</p> <p>(C) For a supplier using a grab sample monitoring program, shall comply with paragraph (2)(B)2; and</p> <p>(D) For a supplier using a continuous monitoring program, shall comply with paragraph (1)(D).</p>

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(4) Slow sand
filtration

(A) Shall be less than or equal to 1.0 NTU in at least 95 percent of the measurements taken each month.

Filtered water from the treatment plant may exceed 1.0 NTU, provided the filter effluent prior to disinfection meets the maximum contaminant level for total coliforms as specified in 22 CCR section 64426.1; and

(B) Shall not exceed 5.0 NTU.

(a) If there is only one filter at the treatment plant, the combined filter effluent turbidity performance standards shall apply to the effluent produced by the filter.

(d) To obtain approval for a higher removal efficiency than that specified in subsection (b), a water supplier shall demonstrate to the State Board that the higher removal efficiency can be reliably obtained.

(e) An alternative to the filtration technologies specified in subsection (a) may be used provided that the supplier demonstrates to the State Board that the alternative technology:

(1) Provides a minimum of 99 percent *Giardia lamblia* cyst removal, 90 percent virus removal for the suppliers serving more than 500 persons, and 99 percent *Cryptosporidium* removal; and

(2) Meets the turbidity performance standards established by the State Board, as determined from the alternative filtration technology demonstration conducted pursuant to subsection (f). The turbidity performance standards shall not be less stringent than the turbidity performance standards established in subsection (c)(1).

(f) The alternative filtration technology demonstration shall be based on the results from a prior equivalency demonstration or a testing of a full scale installation that is treating a water with similar characteristics and is exposed to similar hazards as the water proposed for treatment. A pilot plant test of the water to be treated may also be used for this demonstration if conducted with the approval of the State Board. The demonstration shall be presented in an engineering report prepared by a qualified engineer.

(g) A supplier proposing to use an alternative filtration technology may request from the State Board a waiver to comply with the requirements of subsection (e) to demonstrate 90 percent virus removal. The request shall be based on a watershed sanitary survey conducted in accordance with section 64665, within 12 months of the date of the request, that demonstrates a lack of virus hazard in the watershed.

(h) The State Board's approval of alternative filtration technologies, including establishment of performance standards and monitoring requirements, shall be done in accordance with the permit process specified in sections 116525 through 116550 of the Health and Safety Code.

Certification of Completion of Public Notification

This form, when completed and returned to the Division of Drinking Water - Merced District (265 W. Bullard Ave. #101, Fresno, CA 93704 or fax to 559-447-3304), serves as certification that public notification to water users was completed as required by Title 22, California Code of Regulations, Sections 64463-64465.

Public Water System Name: _____

Public Water System No.: _____

Public notification for a Boil Water Order (BWO) issued March 13, 2016 and cancelled on April 20, 2016, was performed by the following method(s) (check and complete those that apply):

The notice was mailed to users on: _____
A copy of the notice is attached.

The notice was hand delivered to water customers on: _____
A copy of the notice is attached.

The notice was published in the local newspaper on: _____
A copy of the newspaper notice is attached.

The notice was published in conspicuous places on: _____
A copy of the notice is attached.
A list of locations the notice was posted is attached.

The notice was delivered to community organizations on: _____
A copy of the notice is attached.
A list of community organizations the notice was delivered to is attached.

I hereby certify that the above information is factual.

Printed Name

Title

Signature

Date

Disclosure: Be advised that Section 116725 and 116730 of the California Health and Safety Code state that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance with the attached order may be liable for a civil penalty not to exceed five thousand dollars (\$5,000) for separate violation each day that the violation continues. In addition, the violators may be prosecuted in criminal court and, upon conviction, be punished by a fine of not more than \$25,000 for each day of violation, or be imprisoned in the county jail not to exceed one year, or by both the fine and imprisonment.

Due to the Division of Drinking Water within 10 days of issuance of notice to customers

System Number: _____

Enforcement Action No. _____